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10/525,014	02/17/2005	Takashi Takeda	Q86052	5022
23373	7590	06/26/2008	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			KOSLOW, CAROL M	
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/525,014

Filing Date: February 17, 2005

Appellant(s): TAKEDA ET AL.

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John Callahan  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 8 February 2008 and 14 May 2008 appealing from the Office action mailed 21 May 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief dated 14 May 2008, which replaces that in the brief filed 8 February 2008, is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

EP 21,536

Konijnendijk et al.

01-1981

US 2007/0072093

Sawada et al.

3-2007

Art Unit: 1700

US 2002/0023670 Shiramizu et al. 2-2002

U.S. 6,982,046 Srivastava et al. 1-2006

Phosphor Handbook, Shionoya et al. pg. 727.

#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by EP 21,536.

This reference teaches silicate phosphors and their use in low-pressure mercury vapor lamps, which are vacuum ultraviolet radiation exciting devices. The reference teaches these phosphors can have the formula  $M_3(Ln_{2-x},Gd_rTb_x)Si_6O_{18}$ , where M is Ca or Sr, Ln is Y, Gd or La, r is 0 to 2-x and x is 0.01-0.8. This formula falls within that claimed. The reference teaches the claimed device.

#### **(10) Response to Argument**

Appellants argue that low pressure mercury lamps are not a vacuum ultraviolet radiation excited light-emitting device since it emits radiation of 254 nm. While this is correct, these types of lamps also emit radiation in the vacuum ultraviolet range as shown by the cited U.S. published patent applications. Applicants argue that the phrase “vacuum ultraviolet radiation” in the published applications have a different meaning than the provided definition of radiation having a wavelength in the range of 0.2-200 nm. With respect to Shiramizu (U.S. 2002/0023670), while it does include the wavelength of 245 nm as vacuum ultraviolet radiation, it teaches in paragraph 30 that low pressure mercury lamps also emit radiation of 185 nm, which falls within the argued definition of vacuum ultraviolet radiation. Thus it shows low pressure mercury lamps are vacuum ultraviolet radiation excited light-emitting device. With respect to Sawada et al (U.S.

Art Unit: 1700

2007/0072093), while taught broad range is outside the provided definition, the preferred range is the range which the Phosphor Handbook defines as vacuum ultraviolet radiation. Paragraph 56 teaches that low pressure mercury lamp emits radiation in the preferred range. Again this reference shows that shows low pressure mercury lamps are vacuum ultraviolet radiation excited light-emitting device. To further support the Examiner's statement that a low pressure mercury lamps are vacuum ultraviolet radiation excited light-emitting device, appellants are referred to column 1, lines 6-20 in U.S. patent 6,982,046 which states that low pressure mercury lamps emits wavelengths of about 254 nm and about 185 nm, which is vacuum ultraviolet radiation.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/C. Melissa Koslow/

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